

10/616 487

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Amendments to the Specification:

Please replace the paragraph beginning at page 8, line 24 as with the following amended paragraph:

Referring to Fig. 2, each current sensor, such as first current sensor 40, includes a reference transistor 52, a current source 54, and a comparator 56. A similar current sensor is described in simultaneously filed U.S. Application Serial No. 09/_____, by _____, entitled CURRENT MEASURING TECHNIQUES, 09/183,417, now U.S. Patent No. 6,160,441, entitled SENSORS FOR MEASURING CURRENT PASSING THROUGH A LOAD, Express Mail Label EM202542906US, and assigned to the assignee of the present invention, the entire disclosure of which is incorporated herein by reference. The reference transistor 52 has a source connected to the source of the transistor being measured, i.e., first transistor 30, a drain connected to the current source 54, and a gate connected to a control line 44e. The reference transistor 52 is matched to the power transistor 30, i.e., the transistor elements are fabricated using the same process on the same chip and with the same dimensions so that they have substantially identical electrical characteristics. A known current I_{ref} flows through the current source 54. A positive input of the comparator 56 is connected to a node 58 between the drain of the reference transistor 52 and the current source 54, and a negative input of the comparator 56 is connected to the intermediate terminal 26. The output of the comparator is connected to the reference line 44c. The second current sensor 42 is constructed similarly, but with the polarity associated with an NMOS transistor.